

Application No. 10/520,128
Amendment dated April 27, 2007
Reply to Office Action of February 7, 2007

Docket No.: 0054-0291PUS1

AMENDMENTS TO THE DRAWINGS

Attached hereto are 2 sheets of corrected drawings that comply with the provisions of 37 C.F.R. § 1.84. The corrected formal drawings incorporate the following changes:

- Figures 8 and 9 are labeled as “Background Art”.

Applicants respectfully requests that the corrected formal drawings be approved and made a part of the record of the above-identified application.

REMARKS

Applicants thank the Examiner for total consideration given the present application. Claims 1-10 were pending prior to the Office Action. Therefore, claims 1-10 are pending. Claim 1 is independent. Favorable reconsideration and allowance of the present application are respectfully requested in view of the following remarks.

ALLOWABLE SUBJECT MATTER

Applicants appreciate that claims 2-10 are indicated to define allowable subject matter.

DRAWINGS

The drawings are objected to for labeling of Figures 8 and 9. Figures 8 and 9 should be labeled “Background Art”. The drawings have been amended to address this objection. Applicant respectfully request that the objection to the specification/drawings be withdrawn.

35 U.S.C. § 103 REJECTION – APPLICANT’S ADMITTED PRIOR ART IN VIEW OF ENDO (US 4,552,456) AND BUEHLER et al (US 6,860,350 B2)

Claim 1 stands rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Applicant’s Admitted Prior Art (APA) in view of ENDO (US 4,552,456) (hereinafter “ENDO”) and BUEHLER et al (US 6,860,350 B2) (hereinafter “BUEHLER”). Applicants respectfully traverse.

For a Section 103 rejection to be proper, a *prima facie* case of obviousness must be established. *See M.P.E.P. 2142*. One requirement to establish *prima facie case* of obviousness is that the prior art references, when combined, must teach or suggest all claim limitations. *See M.P.E.P. 2142; M.P.E.P. 706.02(j)*. Thus, if the cited references fail to teach or suggest one or more elements, then the rejection is improper and must be withdrawn.

In this instance, APA as described by the Applicant’s specification includes a laser source, first optical coupler, first polarization controller, optical modulator, optical fiber amplifier, transmitting receiver light splitting device, transmitting/receiving optical system.

Claim 1 of the present application recites:

A coherent laser radar device, comprising:

a laser source that oscillates a laser beam which is linearly polarized;
a first optical coupler that is formed of a polarization maintained type optical element that branches the laser beam from the laser source into two lights, a local light and a transmitted light;
an optical modulator that is formed of a polarization maintained type optical element that modulates the transmitted light that is branched by the first optical coupler;
a space type optical amplifier that amplifies the transmitted light which is outputted from the optical modulator over space propagation;
a transmitting/receiving optical system that applies the transmitted light which is amplified by the space type optical amplifier toward a target and receives a scattered light from the target;
a transmitting/receiving light splitting device that splits the transmitted light that is amplified by the space type optical amplifier and the received light that is scattered by the target;
a second optical coupler that is formed of *a polarization maintained type optical element that mixes the local light that is branched by the first optical coupler and the received light that is split by the transmitting/receiving light splitting device together*;
a photodetector that detects heterodyne of a mixed light from the second optical coupler to output a beat signal of the received light;
a beat signal amplifier that amplifies the beat signal which is outputted from the photodetector;
a signal processing device that processes a signal that is amplified by the beat signal amplifier; and
a display device that displays a result processed by the signal processing device,
characterized in that an optical path that extends from the laser source to the space type optical amplifier through the first optical coupler, an optical path that extends from the transmitting/receiving light splitting device to the photodetector through the second optical coupler, and an optical path that extends from the first optical coupler to the second optical coupler are connected by polarization maintained type single mode optical fibers.

APA's Figure 8 illustrates that a local light from the first optical coupler 2 is subject to second polarization controller 11. The local light is sourced from the laser and the first optical coupler without polarization controller as claimed in claim 1 where "*a polarization maintained*

type optical element that mixes the local light that is branched by the first optical coupler and the received light that is split by the transmitting/receiving light splitting device together." Therefore, APA does not teach or suggest polarization maintained type optical element.

Neither ENDO nor Buehler teach or suggest *a polarization maintained type optical element that mixes the local light that is branched by the first optical coupler and the received light that is split by the transmitting/receiving light splitting device together*. Therefore, the Examiner's rejection fails to teach or suggest all claim limitations and rejection must be withdrawn.

In addition, it appears that obviousness has been assumed merely on the assumption that the combination of the references includes all claimed elements. However, it is well established that even if the combination of the references teaches every element of the claimed invention, without some motivation to combine, a rejection based on a *prima facie* case of obviousness is improper. *See MPEP 2143.01.*

In this instance, it appears that the only motivation to combine has been gleaned from the teachings of the present application. This constitutes impermissible hindsight, however. *See MPEP 2141.* Simply put, there is no showing in the Office Action that the conclusion of obviousness was reached on the basis of facts gleaned from the prior art, and not from the claimed invention. *See MPEP 2143.*

The Applicants respectfully submit that the Office Action is based upon a selective combination of features found in the APA and ENDO references, and that such selective combining is impermissible. As stated in *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1143 (Fed. Cir. 1985), "When prior art references require selective combination by the court to render obvious a subsequent invention, there must be some reason for the combination other than the hindsight gleaned from the invention itself." It is respectfully submitted that the Office Action cites the APA, and then utilizes the present application as a road map to selectively replace various features of the APA reference.

CONCLUSION

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Michael K. Mutter Reg. No. 29,680 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.14; particularly, extension of time fees.

Dated: April 30, 2007

Respectfully submitted,

By _____

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